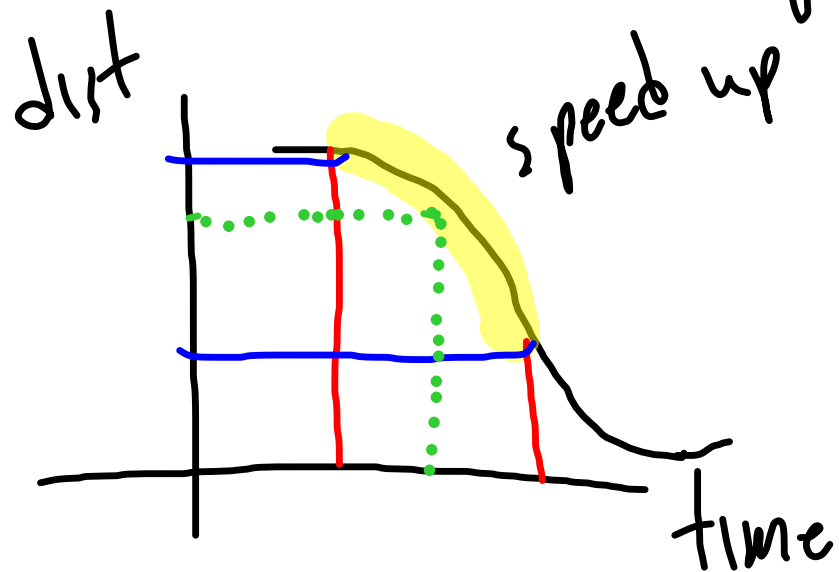


2.4 average rates of change difference quotients

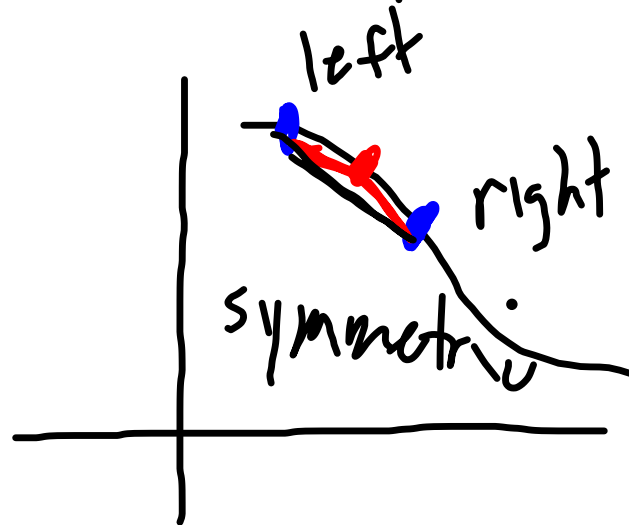


curve - acceleration
(velocity changes)

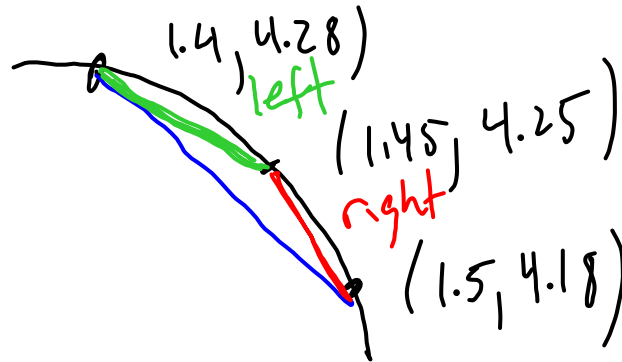
nate's walk

How fast was Nate walking?
It depends on what point in
time

at $t = 1.45$ $d = 4.25$



we need 2 pts
2nd point should be
close to 1st pt.



symmetric difference quotient

$$\frac{4.18 - 4.28}{1.5 - 1.4} = -1 \frac{m}{s}$$

right hand difference quotient

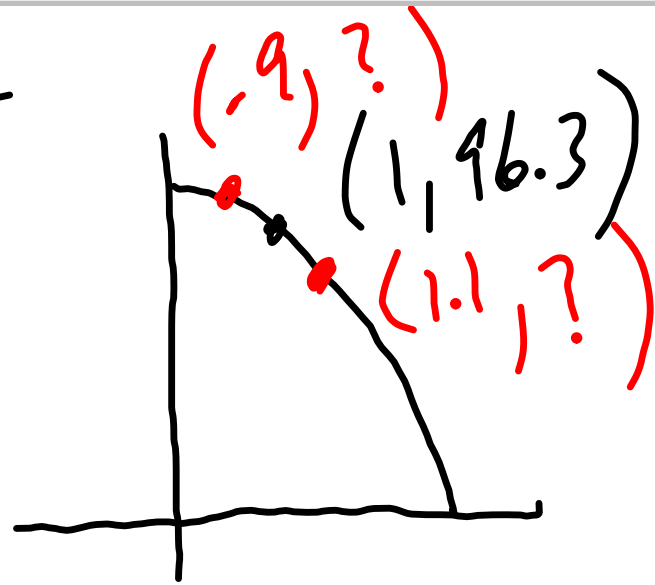
$$\frac{4.18 - 4.25}{1.5 - 1.45} = -1.4 \frac{m}{s}$$

left hand difference quotient

$$\frac{4.25 - 4.28}{1.45 - 1.4} = -.6 \frac{m}{s}$$

$$h = 100 - 3.7t^2$$

how fast at $t=1$



TINSpire calc page, menu

$$\text{define } h(t) = 100 - 3.7t^2$$

$$\frac{h(1.1) - h(-.9)}{1.1 - -.9} = -7.4 \frac{\text{m}}{\text{s}}$$